



May 24, 2016

Meagan E. Ormand Golder Associates Inc. 2108 W. Laburnum Ave. Suite 200 Richmond, VA 23227

RE: Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Dear Meagan Ormand:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole Gasiorowski

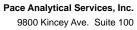
Micolo Yasiorovske

nicole.gasiorowski@pacelabs.com

Project Manager

Enclosures





Huntersville, NC 28078 (704)875-9092



May 24, 2016 Page 2

cc: Ron DiFrancesco, Golder Associates Inc. Martha Smith, Golder Associates Inc. Mike Williams, Golder Associates Inc



REPORT OF LABORATORY ANALYSIS

9800 Kincey Ave. Suite 100 Huntersville, NC 28078 (704)875-9092



CERTIFICATIONS

Project: **BREMO MONTHLY PROCESS**

Pace Project No.: 92298700

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14 Nevada Certification: FL NELAC Reciprocity New York Certification #: 11608 North Carolina Environmental Certificate #: 667

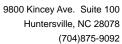
North Carolina Certification #: 12710 North Dakota Certification #: R-216 Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547 Puerto Rico Certification #: FL01264 South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity





SAMPLE ANALYTE COUNT

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92298700001	T1-160523-0832-S3	EPA 200.7	CKJ	8	PASI-O
92298700002	T3-160523-0905-S3	EPA 200.7	CKJ	8	PASI-O

REPORT OF LABORATORY ANALYSIS



PROJECT NARRATIVE

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Method: EPA 200.7
Description: 200.7 MET ICP

Client: Golder_Dominion_Bremo

Date: May 24, 2016

General Information:

2 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

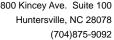
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.





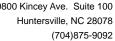
ANALYTICAL RESULTS

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Date: 05/24/2016 06:02 PM

Sample: T1-160523-0832-S3	Lab ID: 9229	8700001	Collected: 05/23/1	16 08:32	2 Received: 05	5/23/16 14:04	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Meth	od: EPA 20	0.7 Preparation Met	thod: El	PA 200.7			
Aluminum	268	ug/L	100	1	05/24/16 12:29	05/24/16 16:02	2 7429-90-5	
Barium	200	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:02	2 7440-39-3	
Beryllium	ND	ug/L	1.0	1	05/24/16 12:29	05/24/16 16:02	2 7440-41-7	
Boron	615	ug/L	50.0	1	05/24/16 12:29	05/24/16 16:02	2 7440-42-8	
Cobalt	ND	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:02	2 7440-48-4	
Iron	ND	ug/L	250	1	05/24/16 12:29	05/24/16 16:02	2 7439-89-6	
Molybdenum	168	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:02	2 7439-98-7	
Vanadium	31.8	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:02	2 7440-62-2	





ANALYTICAL RESULTS

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Date: 05/24/2016 06:02 PM

Sample: T3-160523-0905-S3	Lab ID: 9229	98700002	Collected: 05/23/1	16 09:0	Received: 05	/23/16 14:04	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Meth	od: EPA 20	0.7 Preparation Met	thod: Ef	PA 200.7			
Aluminum	198	ug/L	100	1	05/24/16 12:29	05/24/16 16:14	4 7429-90-5	
Barium	199	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:14	4 7440-39-3	
Beryllium	ND	ug/L	1.0	1	05/24/16 12:29	05/24/16 16:14	4 7440-41-7	
Boron	529	ug/L	50.0	1	05/24/16 12:29	05/24/16 16:14	4 7440-42-8	
Cobalt	ND	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:14	4 7440-48-4	
Iron	ND	ug/L	250	1	05/24/16 12:29	05/24/16 16:14	4 7439-89-6	
Molybdenum	142	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:14	4 7439-98-7	
Vanadium	27.9	ug/L	10.0	1	05/24/16 12:29	05/24/16 16:14	4 7440-62-2	



QUALITY CONTROL DATA

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Date: 05/24/2016 06:02 PM

QC Batch: MPRP/30588 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 MET

Associated Lab Samples: 92298700001, 92298700002

METHOD BLANK: 1583761 Matrix: Water

Associated Lab Samples: 92298700001, 92298700002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	100	05/24/16 15:55	
Barium	ug/L	ND	10.0	05/24/16 15:55	
Beryllium	ug/L	ND	1.0	05/24/16 15:55	
Boron	ug/L	ND	50.0	05/24/16 15:55	
Cobalt	ug/L	ND	10.0	05/24/16 15:55	
Iron	ug/L	ND	250	05/24/16 15:55	
Molybdenum	ug/L	ND	10.0	05/24/16 15:55	
Vanadium	ug/L	ND	10.0	05/24/16 15:55	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aluminum	ug/L	2500	2410	96	85-115	
Barium	ug/L	250	242	97	85-115	
Beryllium	ug/L	25	25.9	103	85-115	
Boron	ug/L	2500	2450	98	85-115	
Cobalt	ug/L	250	251	101	85-115	
ron	ug/L	2500	2380	95	85-115	
Molybdenum	ug/L	250	243	97	85-115	
√anadium	ug/L	250	263	105	85-115	

MATRIX SPIKE & MATRIX SPIK	E DUPLICAT	E: 15837	63		1583764						
			MS	MSD							
	922	298700001	Spike	Spike	MS	MSD	MS	MSD	% Rec		
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qual
Aluminum	ug/L	268	2500	2500	2820	2620	102	94	70-130	8	
Barium	ug/L	200	250	250	470	446	108	98	70-130	5	
Beryllium	ug/L	ND	25	25	26.4	24.0	105	95	70-130	10	
Boron	ug/L	615	2500	2500	3110	2900	100	91	70-130	7	
Cobalt	ug/L	ND	250	250	255	248	102	99	70-130	3	
Iron	ug/L	ND	2500	2500	2540	2390	100	94	70-130	6	
Molybdenum	ug/L	168	250	250	430	418	105	100	70-130	3	
Vanadium	ug/L	31.8	250	250	292	273	104	96	70-130	7	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



QUALIFIERS

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

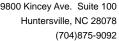
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

Date: 05/24/2016 06:02 PM

PASI-O Pace Analytical Services - Ormond Beach





QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BREMO MONTHLY PROCESS

Pace Project No.: 92298700

Date: 05/24/2016 06:02 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92298700001	T1-160523-0832-S3	EPA 200.7	MPRP/30588	EPA 200.7	ICP/18288
92298700002	T3-160523-0905-S3	EPA 200.7	MPRP/30588	EPA 200.7	ICP/18288

Face Analytical "

Out of hold, incorrect preservative, out of temp, incorrect containers)

Document Name:

Sample Condition Upon Receipt(SCUR)

Document No.: F-MEC-CS-009-rev.02 Document Revised: 26FEB2016

Page 1 of 2

Issuing Authority:

Pace Mechanicsville Quality Office

Page 2 of 2 for Internal IIsa ONIV ample Coradition Upon 🛢 Client Name: WO#: 92298700 Project #: Courier: Commer cial Other: Custody Seal Present? No Seals Intact? No Date/Initials Person Examining Contents 5-23-16 Packing Material: Bubble Wrap Bubble Bags □Non€ Other: Thermometer: M RMD001 Wet Type of Ice: Blue None Samples on ice, cooling process has begun Correction Factor: 0.0°C Cooler Temp Corrected (°C): Biological Tissue Frozen? Yes Temp should be above freezing to 6°C USDA Regulated Soil (N/A, water sample) Did samples or iginate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Did samples originate from a foreign source (internationally, Yes No including Hawaii and Puerto Rico)? Yes COMMENTS: Chain of Custody Present? □No · □N/A 1. Chain of Custo dy Filled Out? **V**Yes No □N/A 2. Chain of Custody Relinquished? □No □N/A Sampler Name and/or Signature on COC? Yes No □N/A Samples Arrived within Hold Time? Yes □No □N/A Short Hold Time Analysis (<72 hr)? No □N/A 6. Rush Turn Around Time Requested? Yes □No □N/A 7. Sufficient Volume? Yes No □N/A 8. Correct Containers Used? Yes □No □N/A -Pace Containers Used? □No □N/A Containers Intact? Yes No □N/A 10. Filtered Volume Received for Dissolved Tests? MN/A ☐ Yes Пио 11. Note if sediment is visible in the dissolved container Sample Labels Match COC? Yes □ No □N/A 12. -Includes Date/Time/ID/Analysis Matrix: All containers needing acid/base preservation have been 13. checked? Yes □ No □N/A All containers needing preservation are found to be in compliance with EPA recommendation? (HNO₃, H₂SO₄, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) ViYes No □N/A Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg Yes □N/A No Samples checked for dechlorination Yes □No MIN/A Headspace in VOA Vials (>5-6mm)? □No Yes MN/A 15. Trip Blank Present? N/A Yes □ No Trip Blank Custody Seals Present? Yes □ No N/A Pace Trip Blank Lot # (if purchased): CLIENT NOTIFICATION/RESOLUTION Field Data Required? Yes No Person Contacted: Date/Time: Comments/Resolution: Project Manager SCURF Review: _____ NMG Date: ____ 5/23/16 Project Manager SRF Review:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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					All analyses to be performed under Golder-Pace MSA dated	ADDITIONA											T3-160523	T1-160523	SAMPLE ID (A-Z, 0-9/) Sample IDS MUST BE UNIQUE	Required Client Information	Section D		Requested Due Date/TAT:	804-551-0129	Mormand@golder.com	Richmond,VA 23227	2108 W Laburnum Ave,	Golder Associates	Section A Required Client Information:
					nder Golder-Pace MS	ADDITIONAL COMMENTS											- 0905-S	-0832-5			Valid		24 HOUR	Fax: 804-358-2900	older.com	1 23227	ırnum Ave, Ste 200	iates	
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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Pace Analytical Services Suite 100 9800 Kincey Ave Huntersville NC 28078

Report Date: May 24, 2016

Project: 92298700

Submittal Date: 05/24/2016 Group Number: 1664631 PO Number: NMG 15512 State of Sample Origin: VA

 Client Sample Description
 (LL) #

 T1-160523-0832-S3 Water Sample
 8394672

 T3-160523-0905-S3 Water Sample
 8394673

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

Electronic Copy To Pace Analytical Services Attn: Nicole Gasiorowski

Respectfully Submitted,

Bonnie Stadelmann Senior Project Manager

Bornie Stadelmann

(312) 590-3133



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: T1-160523-0832-S3 Water Sample

92298700001

Bremo

LL Sample # WW 8394672

LL Group # 1664631 Account # 10945

1

Project Name: 92298700

Submitted: 05/24/2016 09:55

Reported: 05/24/2016 16:57

Collected: 05/23/2016 08:32 Pace Analytical Services

Suite 100

9800 Kincey Ave

Huntersville NC 28078

T1---

CAT No. Analysis Name CAS Number Result Quantitation Dilution Factor

Wet Chemistry OIA-1677-09 mg/l mg/l

12941 Free Cyanide n.a. < 10.0 10.0

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution	
No.					Date and Time		Factor	
12941	Free Cyanide	OIA-1677-09	1	16145941101A	05/24/2016 13:17	Joseph E McKenzie	1	



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: T3-160523-0905-S3 Water Sample

92298700002

Bremo

LL Sample # WW 8394673

LL Group # 1664631 Account # 10945

1

Project Name: 92298700

Submitted: 05/24/2016 09:55

Reported: 05/24/2016 16:57

Collected: 05/23/2016 09:05 Pace Analytical Services

Suite 100

9800 Kincey Ave

Huntersville NC 28078

T3---

CAT No. Analysis Name CAS Number Result Quantitation Dilution Factor

Wet Chemistry OIA-1677-09 mg/l mg/l

12941 Free Cyanide n.a. < 10.0 10.0

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial# Batch#		Analysis	Analyst	Dilution
No.					Date and Time		Factor
12941	Free Cyanide	OIA-1677-09	1	16145941101A	05/24/2016 13:23	Joseph E McKenzie	1



Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Group Number: 1664631 Client Name: Pace Analytical Services

Reported: 05/24/2016 16:57

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name Result mg/l mg/l Sample number(s): 8394672-8394673 Batch number: 16145941101A

Free Cyanide 10.0

LCS/LCSD

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 16145941101A Free Cyanide	Sample number 0.0400	(s): 8394 0.0383	672-8394673		96		86-132		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16145941101A	Sample numb	er(s): 8394	672-8394	673 UNSPK:	8394672					
Free Cyanide	< 10.0	0.0200	0.0193	0.0200	0.0198	96	99	86-132	3	3

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

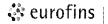
⁽²⁾ The unspiked result was more than four times the spike added.

Chain of Custody -

A-10945 6-1664631 5-8394672-73



Workorder: 92298700 Wor	orkorder Name: BREMO MONTHLY PROCESS					Results Requeste	d Bv: 5/24/2016	
Report / Invoice To	Subcontract To					Requested Analysis		
Nicole Gasiorowski Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092 Email: nicole.gasiorowski@pacelabs.co	Sample Administration P.O. NMG 15512 Eurofins Lancaster Laboratories Env.						Analysis	
State of Sample Origin: VA Preserved Containers					ntainers	9		
Item Sample ID	Collect Date/Time La	b ID Ma	trix	Hggw		77.22 MIO		LAB USE ONLY
1 T1-160523-0832-S3	5/23/2016 08:32 92	298700001 Wa	iter 2	2	1-1-1	X		
2 T3-160523-0905-S3	5/23/2016 09:05 92	298700002 Wa		2	1 1 1	X		
3								
4								
5								
Transfers Released By Deto/Time Province Description								
V: / // Received By			Date/Time		e .			
1 Kachel Burness 5-23-16 1715					-	add State of the s		
2				and the same of th				
3 Jan Hasar					5-24.16/	995		
Cooler Temperature on Receipt O.5 °C Custody Seal Y or N Received on Ice Y or N Samples Intact O or N								



Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID:

147664

Group Number(s): 1664631

Client: Pace

Delivery and Receipt Information

Delivery Method:

Fed Ex

Arrival Timestamp:

05/24/2016 9:55

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

<u>NC</u>

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

No

Sample Date/Times match COC:

Yes

Samples Chilled:

Yes

VOA Vial Headspace ≥ 6mm:

N/A

Paperwork Enclosed:

Yes

Total Trip Blank Qty:

Samples Intact:

Yes

Air Quality Samples Present:

No

Missing Samples:

No

Extra Samples:

No

Discrepancy in Container Qty on COC: No

Unpacked by Joseph Huber (7831) at 10:18 on 05/24/2016

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Thermometer ID 32170023

Corrected Temp

Therm. Type

Ice Present? Ice Type

Ice Container

Elevated Temp?

Cooler# 1

0.5

IR

Wet

Υ

Loose

Ν



Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Besults printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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